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FILE 'CAPLUS' ENTERED AT 09:50:57 ON 23 JAN 1998
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*** YOU HAVE NEW MAIL ***

=> s IL-1i? or irap or (interleukin-1 receptor antagonist) or (interleukin-1 inhibitor)

L1 3023 IL-1I? OR IRAP OR (INTERLEUKIN-1 RECEPTOR ANTAGONIST) OR (INTERLEUKIN-1 INHIBITOR)

=> s IL-1i? or irap or (interleukin-1 receptor antagonist)

L2 2790 IL-1I? OR IRAP OR (INTERLEUKIN-1 RECEPTOR ANTAGONIST)

=> s 11 not py>1991

1 FILES SEARCHED...

2 FILES SEARCHED...

3 FILES SEARCHED...

L3 336 L1 NOT PY>1991

=> dup rem 13

PROCESSING COMPLETED FOR L3

L4 192 DUP REM L3 (144 DUPLICATES REMOVED)

ORDERED 1/23/98

L4 ANSWER 13 OF 192 MEDLINE DUPLICATE 5
AU Eisenberg S P; Brewer M T; Verderber E; Heimdal P; Brandhuber B J;
Thompson R C
TI **Interleukin 1 receptor**
antagonist is a member of the interleukin 1 gene family:
evolution of a cytokine control mechanism.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES
OF AMERICA, (1991 Jun 15) 88 (12) 5232-6.
Journal code: PV3. ISSN: 0027-8424.

L4 ANSWER 17 OF 192 MEDLINE DUPLICATE 7
AU Zahedi K; Seldin M F; Rits M; Ezekowitz R A; Whitehead A S
TI Mouse IL-1 receptor antagonist protein. Molecular characterization,
gene mapping, and expression of mRNA in vitro and in vivo.
SO JOURNAL OF IMMUNOLOGY, (1991 Jun 15) 146 (12) 4228-33.
Journal code: IFB. ISSN: 0022-1767.

L4 ANSWER 19 OF 192 MEDLINE DUPLICATE 8
AU Haskill S; Martin G; Van Le L; Morris J; Peace A; Bigler C F; Jaffe
G J; Hammerberg C; Sporn S A; Fong S; et al
TI cDNA cloning of an intracellular form of the human
interleukin 1 receptor
antagonist associated with epithelium.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES
OF AMERICA, (1991 May 1) 88 (9) 3681-5.
Journal code: PV3. ISSN: 0027-8424.

L4 ANSWER 22 OF 192 MEDLINE DUPLICATE 10
AU Shuck M E; Eessalu T E; Tracey D E; Bienkowski M J
TI Cloning, heterologous expression and characterization of murine
interleukin 1 receptor
antagonist protein.
SO EUROPEAN JOURNAL OF IMMUNOLOGY, (1991 Nov) 21 (11) 2775-80.
Journal code: EN5. ISSN: 0014-2980.

L4 ANSWER 23 OF 192 MEDLINE DUPLICATE 11
AU Ju G; Labriola-Tompkins E; Campen C A; Benjamin W R; Karas J;
Plocinski J; Biondi D; Kaffka K L; Kilian P L; Eisenberg S P; et al
TI Conversion of the **interleukin 1 receptor**
antagonist into an agonist by site-specific mutagenesis.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES
OF AMERICA, (1991 Apr 1) 88 (7) 2658-62.
Journal code: PV3. ISSN: 0027-8424.

L4 ANSWER 32 OF 192 MEDLINE DUPLICATE 17
AU Arend W P
TI **Interleukin 1 receptor**
antagonist. A new member of the interleukin 1 family.
SO JOURNAL OF CLINICAL INVESTIGATION, (1991 Nov) 88 (5) 1445-51. Ref:
65
Journal code: HS7. ISSN: 0021-9738.

L4 ANSWER 41 OF 192 MEDLINE DUPLICATE 24
AU McIntyre K W; Stepan G J; Kolinsky K D; Benjamin W R; Plocinski J M;
Kaffka K L; Campen C A; Chizzonite R A; Kilian P L
TI Inhibition of interleukin 1 (IL-1) binding and bioactivity in vitro
and modulation of acute inflammation in vivo by IL-1 receptor
antagonist and anti-IL-1 receptor monoclonal antibody.

SO JOURNAL OF EXPERIMENTAL MEDICINE, (1991 Apr 1) 173 (4) 931-9.
Journal code: I ISSN: 0022-1007.

L4 ANSWER 43 OF 192 MEDLINE DUPLICATE 25
AU Matsushime H; Roussel M F; Matsushima K; Hishinuma A; Sherr C J
TI Cloning and expression of murine **interleukin-1 receptor antagonist** in macrophages stimulated by colony-stimulating factor 1.
SO BLOOD, (1991 Aug 1) 78 (3) 616-23.
Journal code: A8G. ISSN: 0006-4971.

L4 ANSWER 44 OF 192 MEDLINE DUPLICATE 26
AU Licinio J; Wong M L; Gold P W
TI Localization of **interleukin-1 receptor antagonist** mRNA in rat brain.
SO ENDOCRINOLOGY, (1991 Jul) 129 (1) 562-4.
Journal code: EGZ. ISSN: 0013-7227.

L4 ANSWER 45 OF 192 MEDLINE DUPLICATE 27
AU Conti P
TI Interleukin-1 (IL-1) and **interleukin-1 receptor antagonist** (IL-1ra).
SO ANNALES DE MEDECINE INTERNE, (1991) 142 (7) 521-5. Ref: 48
Journal code: 5FZ. ISSN: 0003-410X.

L4 ANSWER 48 OF 192 MEDLINE
AU Opp M P; Krueger J M
TI **Interleukin 1-receptor antagonist** blocks interleukin 1-induced sleep and fever.
SO AMERICAN JOURNAL OF PHYSIOLOGY, (1991 Feb) 260 (2 Pt 2) R453-7.
Journal code: 3U8. ISSN: 0002-9513.

L4 ANSWER 64 OF 192 MEDLINE DUPLICATE 38
AU Lin T; Guo H; Calkins J H; Wang D; Chi R
TI Recombinant monocyte-derived **interleukin-1**
receptor antagonist reverses inhibitory effects of
interleukin-1 on Leydig cell steroidogenesis.
SO MOLECULAR AND CELLULAR ENDOCRINOLOGY, (1991 Jul) 78 (3) 205-9.
Journal code: E69. ISSN: 0303-7207.

L4 ANSWER 73 OF 192 MEDLINE DUPLICATE 42
AU Conti P; Reale M; Panara M R; Barbacane R C; Bongrazio M; Dempsey R
A
TI Human recombinant **interleukin-1 receptor**
antagonist inhibits lymphocyte blastogenesis induced by
concanavalin A. Restorative effect of hrIL-1.
SO FEBS LETTERS, (1991 Jul 29) 286 (1-2) 137-41.
Journal code: EUH. ISSN: 0014-5793.

L4 ANSWER 79 OF 192 CAPLUS COPYRIGHT 1998 ACS
AU Pae, Yun Soo
TI **Interleukin 1 inhibitor** factor
SO Saenghwahak Nyusu (1991), 11(2), 108-11
CODEN: SANYEZ; ISSN: 1016-0884

L4 ANSWER 87 OF 192 MEDLINE DUPLICATE 47
AU Conti P; Reale M; Barbacane R C; Panara M R; Bongrazio M; Dempsey R
A; Dinarello C A
TI Reduced mitogen stimulation of DNA synthesis in human lymphocytes by
a human recombinant **interleukin-1**
receptor antagonist.
SO IMMUNOLOGY LETTERS, (1991 Apr) 28 (1) 19-25.
Journal code: GIH. ISSN: 0165-2478.

L4 ANSWER 90 OF 192 CAPLUS COPYRIGHT 1998 ACS
AU Sporn, Sarah Ann
TI Modulation of monocyte/macrophage mRNA expression in the
inflammatory response: effects of the microenvironment and
isolation of novel cDNA clones induced by adherence
SO (1990) 152 pp. Avail. Univ. Microfilms Int., Order No. DA9034759
From: Diss. Abstr. Int. B 1991, 51(7), 3258-9

L4 ANSWER 97 OF 192 MEDLINE DUPLICATE 49
AU Seckinger P; Klein-Nulend J; Alander C; Thompson R C; Dayer J M;
Raisz L G
TI Natural and recombinant human IL-1 receptor antagonists block the
effects of IL-1 on bone resorption and prostaglandin production.
SO JOURNAL OF IMMUNOLOGY, (1990 Dec 15) 145 (12) 4181-4.
Journal code: IFB. ISSN: 0022-1767.

L4 ANSWER 99 OF 192 MEDLINE DUPLICATE 51
AU Arend W P; Welgus H G; Thompson R C; Eisenberg S P
TI Biological properties of recombinant human monocyte-derived
interleukin 1 receptor
antagonist.
SO JOURNAL OF CLINICAL INVESTIGATION, (1990 May) 85 (5) 1694-7.
Journal code: HS7. ISSN: 0021-9738.

L4 ANSWER 104 OF 192 MEDLINE DUPLICATE 54
AU Carter D B; Deibel M R Jr; Dunn C J; Tomich C S; Laborde A L;

TI Slightom J L; Berger A E; Bienkowski M J; Sun F F; McEwan R N; et al
Purification, cloning, expression and biological characterization of
an **interleukin-1 receptor antagonist** protein [see comments].
SO NATURE, (1990 Apr 12) 344 (6267) 633-8.
Journal code: NSC. ISSN: 0028-0836.

L4 ANSWER 111 OF 192 MEDLINE DUPLICATE 57
AU Eisenberg S P; Evans R J; Arend W P; Verderber E; Brewer M T; Hannum
C H; Thompson R C
TI Primary structure and functional expression from complementary DNA
of a human **interleukin-1 receptor antagonist**.
SO NATURE, (1990 Jan 25) 343 (6256) 341-6.
Journal code: NSC. ISSN: 0028-0836.

L4 ANSWER 118 OF 192 MEDLINE DUPLICATE 61
AU Arend W P
TI **Interleukin-1 receptor antagonist**: discovery, structure and properties.
SO PROGRESS IN GROWTH FACTOR RESEARCH, (1990) 2 (4) 193-205. Ref: 59
Journal code: A6S. ISSN: 0955-2235.

L4 ANSWER 120 OF 192 MEDLINE DUPLICATE 62
AU Shields J; Bernasconi L M; Benotto W; Shaw A R; Mazzei G J
TI Production of a 26,000-dalton **interleukin 1 inhibitor** by human monocytes is regulated by
granulocyte-macrophage colony-stimulating factor.
SO CYTOKINE, (1990 Mar) 2 (2) 122-8.
Journal code: A52. ISSN: 1043-4666.

L4 ANSWER 130 OF 192 CAPLUS COPYRIGHT 1998 ACS
IN Hannum, Charles H.; Eisenberg, Stephen P.; Thompson, Robert C.;
Arend, William P.; Joslin, Fenneke G.; Sommer, Andreas
TI Interleukin-1 inhibitors of human, their purification and cDNA
cloning
SO Eur. Pat. Appl., 53 pp.
CODEN: EPXXDW

L4 ANSWER 131 OF 192 MEDLINE
AU Seckinger P; Isaaz S; Dayer J M
TI Purification and biologic characterization of a specific tumor
necrosis factor alpha inhibitor.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1989 Jul 15) 264 (20) 11966-73.
Journal code: HIV. ISSN: 0021-9258.

L4 ANSWER 147 OF 192 MEDLINE DUPLICATE 70
AU Rosenstreich D L; Tu J H; Kinkade P R; Maurer-Fogy I; Kahn J; Barton
R W; Farina P R
TI A human urine-derived **interleukin 1 inhibitor**. Homology with deoxyribonuclease I.
SO JOURNAL OF EXPERIMENTAL MEDICINE, (1988 Nov 1) 168 (5) 1767-79.
Journal code: I2V. ISSN: 0022-1007.

L4 ANSWER 180 OF 192 MEDLINE DUPLICATE 83
AU Berman M A; Sandborg C I; Calabia B S; Andrews B S; Friou G J
TI Studies of an **interleukin 1 inhibitor**:
characterization and clinical significance.
SO CLINICAL AND EXPERIMENTAL IMMUNOLOGY, (1986 Apr) 64 (1) 136-45.
Journal code: DD7. ISSN: 0009-9104.

L4 ANSWER 184 OF 192 MEDLINE DUPLICATE 84
AU Liao Z; Haimovitz A; Chen Y; Chan J; Rosenstreich D L
TI Characterization of a human **interleukin 1 inhibitor**.

SO JOURNAL OF IMMUNOLOGY, (1985 Jun) 134 (6) 3882-6
Journal code: 1 [REDACTED] ISSN: 0022-1767.

ENTRY A30368 #type complete
TITLE interleukin-1 receptor antagonist secreted form precursor -
human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change
23-May-1997
ACCESSIONS A40956; I37894; A30368; S08160; S08159; A37822
REFERENCE A40956
#authors Eisenberg, S.P.; Brewer, M.T.; Verderber, E.; Heimdal, P.;
Brandhuber, B.J.; Thompson, R.C.
#journal Proc. Natl. Acad. Sci. U.S.A. (1991) 88:5232-5236
#title Interleukin 1 receptor antagonist is a member of the
interleukin 1 gene family: evolution of a cytokine control
mechanism.
#cross-references MUID:91271363
#accession A40956
##molecule_type DNA
##residues 1-177 ##label EIS
##cross-references GB:M63099
REFERENCE I37894
#authors Lennard, A.; Gorman, P.; Carrier, M.; Griffiths, S.; Scotney,
H.; Sheer, D.; Solari, R.
#journal Cytokine (1992) 4:83-89
#title Cloning and chromosome mapping of the human interleukin-1
receptor antagonist gene.
#cross-references MUID:92338323
#accession I37894
##status translated from GB/EMBL/DDBJ
##molecule_type DNA
##residues 1-177 ##label LEN
##cross-references EMBL:X64532; NID:g33798; CDS_PID:g33799
REFERENCE A30368
#authors Carter, D.B.; Deibel Jr., M.R.; Dunn, C.J.; Tomich, C.S.C; et
al.
#journal Nature (1990) 344:633-638
#title Purification, cloning, expression and biological
characterization of an interleukin-1 receptor antagonist
protein.
#cross-references MUID:90220867
#accession A30368
##molecule_type mRNA
##residues 1-177 ##label CAR
##cross-references GB:X53296
##note parts of this sequence, including the amino end of the
mature protein, were confirmed by peptide sequencing
REFERENCE S08160
#authors Eisenberg, S.P.; Evans, R.J.; Arend, W.P.; Verderber, E.;
Brewer, M.T.; Hannum, C.H.; Thompson, R.C.
#journal Nature (1990) 343:341-346
#title Primary structure and functional expression from
complementary DNA of a human interleukin-1 receptor
antagonist.
#cross-references MUID:90136921
#accession S08160

##status not compared with conceptual translation
##molecule_type mRNA
##residues 1-177 ##label EI2
REFERENCE S08159
#authors Hannum, C.H.; Wilcox, C.J.; Arend, W.P.; Joslin, F.G.;
Dripps, D.J.; Heimdal, P.L.; Armes, L.G.; Sommer, A.;
Eisenberg, S.P.; Thompson, R.C.
#journal Nature (1990) 343:336-340
#title Interleukin-1 receptor antagonist activity of a human
interleukin-1 inhibitor.
#cross-references MUID:90136920
#accession S08159
##molecule_type protein
##residues 26-75;97-108;110-116;120-131;163-176 ##label HAN
REFERENCE A37822
#authors Bienkowski, M.J.; Eessalu, T.E.; Berger, A.E.; Truesdell, et
al.
#journal J. Biol. Chem. (1990) 265:14505-14511
#title Purification and characterization of interleukin 1 receptor
level antagonist proteins from THP-1 cells.

Kaufman, Claire

From: Kaufman, Claire
Sent: Friday, January 23, 1998 9:25 AM
To: STIC-FPAS
Subject: pat req. 08482283

Foreign Patent REQUEST

Examiner: Claire Kaufman Art Unit: 1812 Phone: 305-5791
S.N.: 08/482,283 Date: 1/23/98

country: WO #9117249

WO #9117184

EP #343684-A (pub. date 29-Nov-1989 please)

Thanks,
Claire

RESULT 1
ID R15262 standard; Protein; 159 AA.
AC R15262;
DT 13-FEB-1992 (first entry)
DE Variant IL-1 cytokine inhibitor.
KW Intracellular; Interleukin-1; cancer; immunosuppressive.
OS Homo sapiens.
PN WO9117249-A.
PD 14-NOV-1991.
PF 10-APR-1991; UO2460.
PR 01-MAY-1990; US-517276.
PA (CETU) CETUS CORP.
PA (UYN-NC) UNIV NORTH CAROLINA.
PI Haskill JS, Martin G, Ralph P.
DR WPI; 91-353770/48.
DR N-PSDB; Q14843.
PT New Interleukin-1 antagonists - used to diagnose conditions
PT mediated by IL-1 and to treat and prevent sepsis and cancer
PS Claim 7; Fig 2; 42pp; English.
CC The amino acid sequence is that of an intracellular protein having
CC cytokine inhibitory activity, it is a variant interleukin-1 (IL-1)
CC cytokine inhibitor. The DNA encoding the inhibitor can be used to
CC determine the number of copies of the inhibitor gene present per
CC cell in various types of cancers and so measure the degree of over-
CC amplification. The inhibitor can be administered to patients at high
CC risk of developing sepsis or who have already developed it. It may
CC also have immunosuppressive effects against rheumatoid arthritis.
SQ Sequence 159 AA;

Query Match 100.0%; Score 1109; DB 3; Length 159;
Best Local Similarity 100.0%; Pred. No. 3.46e-106;
Matches 152; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 8 rpsgrksskmqafriwdvnqktfylrnnqlvagylqgpvnleekidvvpiephalfgi 67
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 1 rpsgrksskmqafriwdvnqktfylrnnqlvagylqgpvnleekidvvpiephalfgi 60

Db 68 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgpttsfesaacpgwf 127
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 61 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgpttsfesaacpgwf 120

Db 128 lctameadqpvslnmpdegvmvtkfyfqede 159
||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Qy 121 lctameadqpvslnmpdegvmvtkfyfqede 152

RESULT 2

ID R14400 standard; Protein; 177 AA.

AC R14400;

DT 17-FEB-1992 (first entry)

DE IRAP.

KW Sclavo peptide; MIRAP; interleukin; receptor; inhibitor.

OS Homo sapiens.

FH Key Location/Qualifiers

FT Peptide 1..15

FT /label= sig_peptide

FT Protein 26..177

FT /label= mat_protein

FT Modified_site 109

FT /label= N-glycosylation_site

PN WO9117184-A.

PD 14-NOV-1991.

PF 03-APR-1991; U02127.

PR 27-APR-1990; US-515468.

PA (UPJO) UPJOHN CO.

PI Carter DB;

DR WPI; 91-353724/48.

DR N-PSDB; Q14693.

PT New DNA molecules are modified Interleukin-1 inhibitors -

PT comprising an IL-1 receptor antagonist protein and a Sclavo

PT protein, useful for treating arthritis

PS Disclosure; Page 25; 29pp; English.

CC In order to construct improved Interleukin-1 Receptor Agonist

CC Protein (IRAP), manipulations are performed on the IRAP gene to

CC insert oligonucleotides (Q14690-92) that encode a Sclavo peptide

CC into the appropriate region of the IRAP gene.

CC See also Q14690-4.

SQ Sequence 177 AA;

Query Match 100.0%; Score 1109; DB 3; Length 177;

Best Local Similarity 100.0%; Pred. No. 3.46e-106;

Matches 152; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 26 rpsgrksskmqafriwdvnqktfyrlrnqnlvagylqgpnvnleekidvvpiephalfagi 85
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Qy 1 rpsgrksskmqafriwdvnqktfyrlrnqnlvagylqgpnvnleekidvvpiephalfagi 60

Db 86 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgrttfsesaacpgwf 145
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Qy 61 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgrttfsesaacpgwf 120

Db 146 lctameadqpvsltnmpdegvmvtkfyfqede 177
||| ||||| ||||| ||||| ||||| |||||

Qy 121 lctameadqpvsltnmpdegvmvtkfyfqede 152

RESULT 12

ID P93616 standard; Protein; 165 AA.
AC P93616;
DT 14-MAR-1992 (first entry)
DE Sequence encoded by bps 61-600 of interleukin-1 inhibitor
(IL-1i) gene.
KW Interleukin-1 inhibitor; inflammation therapy;
KW immunosuppressive agent; inflamed joint.
OS Homo sapiens.
PN EP-343684-A.
PD 29-NOV-1989.
PF 26-MAY-1989; 109540.
PR 27-MAY-1988; US-199915.
PR 31-AUG-1988; US-238171.
PR 31-AUG-1988; US-238713.
PR 23-SEP-1988; US-248521.
PR 03-NOV-1988; US-266531.
PA (SYNE-) SYNERGEN INC.
PI Hannum CH, Eisenberg SP, Thompson RC, Arend WP, Joslin FG,
PI Sommer A;
DR WPI; 89-349765/48.
DR N-PSDB; N92441.
PT Purified interleukin-1 inhibitor - used as an immuno:suppressing
PT agent or to prevent tissue destruction at sites of inflammation
PS Claim 18; Page 28; 53pp; English.
CC The inventors specifically claim recombinant DNA molecule GT10-IL1i-
CC 2A; and the interleukin-1 inhibitors IL-1i-X, IL-1i-alpha and IL-1i-
CC beta. The preferred component is cDNA or a genomic polynucleotide
CC sequence. It includes bases 99-557 of GT10-IL1i-2A (see N92441-
CC N92443). Also claimed is a purified interleukin-1 inhibitor (IL-1i),
CC which is active against 1 or more than 1 of IL-1alpha and IL-1beta.
SQ Sequence 165 AA;

Query Match 99.2%; Score 1100; DB 3; Length 165;
Best Local Similarity 100.0%; Pred. No. 3.30e-105;
Matches 151; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 15 psgrksskmqafriwdvnqktfyrlrnqnlvagylqgpvnleekidvvpiephalfgih 74
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 2 psgrksskmqafriwdvnqktfyrlrnqnlvagylqgpvnleekidvvpiephalfgih 61

Db 75 ggkmclscvksgdetrlqleavnitdlsernkqdkrfafirsdsgpttsfesaacpgwfl 134
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 62 ggkmclscvksgdetrlqleavnitdlsernkqdkrfafirsdsgpttsfesaacpgwfl 121

Db 135 ctameadqpvslnmpdegvmvtfyfqede 165
||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 122 ctameadqpvslnmpdegvmvtfyfqede 152

RESULT 1

ENTRY A30368 #type complete

TITLE interleukin-1 receptor antagonist secreted form precursor - human

ORGANISM #formal_name Homo sapiens #common_name man

DATE 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 23-May-1997

ACCESSIONS A40956; I37894; A30368; S08160; S08159; A37822

REFERENCE A40956

#authors Eisenberg, S.P.; Brewer, M.T.; Verderber, E.; Heimdal, P.; Brandhuber, B.J.; Thompson, R.C.

#journal Proc. Natl. Acad. Sci. U.S.A. (1991) 88:5232-5236

#title Interleukin 1 receptor antagonist is a member of the interleukin 1 gene family: evolution of a cytokine control mechanism.

#cross-references MUID:91271363

#accession A40956

##molecule_type DNA

##residues 1-177 ##label EIS

##cross-references GB:M63099

REFERENCE I37894

#authors Lennard, A.; Gorman, P.; Carrier, M.; Griffiths, S.; Scotney, H.; Sheer, D.; Solari, R.

#journal Cytokine (1992) 4:83-89

#title Cloning and chromosome mapping of the human interleukin-1 receptor antagonist gene.

#cross-references MUID:92338323

#accession I37894

##status translated from GB/EMBL/DDBJ

##molecule_type DNA

##residues 1-177 ##label LEN

##cross-references EMBL:X64532; NID:g33798; CDS_PID:g33799

REFERENCE A30368

#authors Carter, D.B.; Deibel Jr., M.R.; Dunn, C.J.; Tomich, C.S.C; et al.

#journal Nature (1990) 344:633-638

#title Purification, cloning, expression and biological characterization of an interleukin-1 receptor antagonist protein.

#cross-references MUID:90220867

#accession A30368

##molecule_type mRNA

##residues 1-177 ##label CAR

##cross-references GB:X53296

#note parts of this sequence, including the amino end of the mature protein, were confirmed by peptide sequencing

REFERENCE S08160

#authors Eisenberg, S.P.; Evans, R.J.; Arend, W.P.; Verderber, E.; Brewer, M.T.; Hannum, C.H.; Thompson, R.C.

#journal Nature (1990) 343:341-346

#title Primary structure and functional expression from complementary DNA of a human interleukin-1 receptor antagonist.

#cross-references MUID:90136921

#accession S08160

##status not compared with conceptual translation

RESULT 1

ID P93616 standard; Protein; 165 AA.
AC P93616;
DT 14-MAR-1992 (first entry)
DE Sequence encoded by bps 61-600 of interleukin-1 inhibitor
DE (IL-1i) gene.
KW Interleukin-1 inhibitor; inflammation therapy;
KW immunosuppressive agent; inflamed joint.
OS Homo sapiens.
PN EP-343684-A.
PD 29-NOV-1989.
PF 26-MAY-1989; 109540.
PR 27-MAY-1988; US-199915.
PR 31-AUG-1988; US-238171.
PR 31-AUG-1988; US-238713.
PR 23-SEP-1988; US-248521.
PR 03-NOV-1988; US-266531.
PA (SYNE-) SYNERGEN INC.
PI Hannum CH, Eisenberg SP, Thompson RC, Arend WP, Joslin FG,
PI Sommer A;
DR WPI; 89-349765/48.
DR N-PSDB; N92441.
PT Purified interleukin-1 inhibitor - used as an immuno:suppressing
PT agent or to prevent tissue destruction at sites of inflammation
PS Claim 18; Page 28; 53pp; English.
CC The inventors specifically claim recombinant DNA molecule GT10-IL1i-
CC 2A; and the interleukin-1 inhibitors IL-1i-X, IL-1i-alpha and IL-1i-
CC beta. The preferred component is cDNA or a genomic polynucleotide
CC sequence. It includes bases 99-557 of GT10-IL1i-2A (see N92441-
CC N92443). Also claimed is a purified interleukin-1 inhibitor (IL-1i),
CC which is active against 1 or more than 1 of IL-1alpha and IL-1beta.
SQ Sequence 165 AA;

Query Match 100.0%; Score 1108; DB 3; Length 165;
Best Local Similarity 100.0%; Pred. No. 1.14e-105;
Matches 152; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 14 ppsgrksskmqafriwdvnqktfyrlrnnqlvagylqgpnvnleekidvvpiephalfagi 73
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 1 ppsgrksskmqafriwdvnqktfyrlrnnqlvagylqgpnvnleekidvvpiephalfagi 60

Db 74 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgpttsfesaacpgwf 133
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 61 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgpttsfesaacpgwf 120

Db 134 lctameadqpvsltnmpdegvmvtkfyfqede 165
||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 121 lctameadqpvsltnmpdegvmvtkfyfqede 152

RESULT 2

ID R35485 standard; Protein; 177 AA.
AC R35485;
DT 26-AUG-1993 (first entry)
DE IL-1i-2A fragment.
KW Interleukin-1 inhibitor; immunosuppressive; inflammation; cytokine;
KW collagenase.
OS Homo sapiens.
FH Key Location/Qualifiers
FT Peptide 1..25
FT /note= "part of N-terminal signal sequence;
FT claim 12, page 28"
FT Protein 26
FT /label= IL-1i
FT Modified_site 109
FT /note= "N residue that is part of a
FT consensus N-glycosylation site"
FT Misc_difference 26
FT /note= "P residue; but no P has been
FT detected at this position (the N-terminus)
FT of form X of IL-1i; this residue may be
FT modified in the mature protein"
PN EP-541920-A.
PD 19-MAY-1993.
PF 26-MAY-1989; 109540.
PR 27-MAY-1988; US-199915.
PR 31-AUG-1988; US-238713.
PR 23-SEP-1988; US-248521.
PR 03-NOV-1988; US-266531.
PA (SYND) SYNERGEN INC.
PI Arend WP, Eisenberg SP, Hannum CH, Joslin FG, Sommer A;
PI Thompson RC;
DR WPI; 93-160536/20.
DR N-PSDB; Q40753.
PT New interleukin-1 inhibiting peptide and DNA - useful as
PT immunosuppressant for treating auto:immune and other immune
PT disorders
PS Disclosure; Fig 14; 55pp; English.
CC A plaque, GT10-IL-1i-2A, was isolated from a GT10 library, using
CC the probes given in Q40757-61.
CC IL-1i is useful as an immunosuppressive agent. When applied
CC locally it can be used to prevent tissue destruction in an inflamed
CC joint and other inflammation sites. This protective effect may be
CC improved if IL-1i is given with collagenase inhibitors.
SQ Sequence 177 AA;

Query Match 100.0%; Score 1108; DB 7; Length 177;
Best Local Similarity 100.0%; Pred. No. 1.14e-105;
Matches 152; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 26 ppsgrksskmqafriwdvnqktfyrlrnqlvagylqggpvnleekidvvpiephalfgi 85
||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

Qy 1 ppsgrksskmqafriwdvnqktfyrlrnqlvagylqggpvnleekidvvpiephalfgi 60

Db 86 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsdsgrttfsesaacpgwf 145

Qy ||||||| 61 hggkmclscvksgdetrlqleavnitdlsenrkqdkrfafirsds
Db 146 lctameadqpvs1tnmpdegvmvtkfyfqede 177
Qy 121 lctameadqpvs1tnmpdegvmvtkfyfqede 152